

## CLAIMS

1. A weightlifting system, comprising a pair of laterally spaced weight stands, an elongated bar extending between the weight stands, and a plurality of weight plates disposed side-by-side in an upright position on each of the stands, with end portions of the bar passing through openings in the plates and the plates being formed in sections which are hinged together and adapted to be selectively attached to the bar by movement between open and closed positions.
2. The weightlifting system of Claim 1 including a bench positioned beneath the bar for receiving a person using the system.
3. The weightlifting system of Claim 2 wherein the bench is movable between raised and lowered positions.
4. The weightlifting system of Claim 2 including a pair of individually operable leg extension bars at one end of the bench, a weight tray beneath each of the leg extension bars, and a plurality of weight plates resting side-by-side in an upright position in each of the trays for attachment to the leg extension bars.
5. The weightlifting system of Claim 4 wherein the plates in the trays are formed in sections which are hinged together for movement between open and closed positions and have openings through which the leg extension bars pass.
6. The weightlifting system of Claim 1 including a frame having a pair of upright posts positioned between the weight stands, and a pair of guides which are connected to the bar and mounted on the posts for movement along them.

7. The weightlifting system of Claim 7 including means limiting downward movement of the guides along the posts to define a rest position for the bar.

8. A weightlifting system, comprising a bench, a pair of weight stands on opposite sides of the bench, an elongated bar extending over the bench between the weight stands, a plurality of weight plates disposed side-by-side in an upright position on each of the weight stands, with end portions of the bar passing through openings in the plates, and means for moving the bench between raised and lowered positions relative to the bar.

9. The weightlifting system of Claim 8 wherein the bench is pivotally mounted for movement between a horizontal position and a downwardly inclined position.

10. The weightlifting system of Claim 9 wherein the means for moving the bench includes a lifting arm which engages the under side of the bench in cam-like fashion and is affixed to a shaft for rotation between upright and retracted positions, and a handle operable by a person on the bench for turning the shaft to move the arm between the upright and retracted positions.

11. The weightlifting system of Claim 8 including a pair of individually operable leg extension bars at one end of the bench, and a plurality of weight plates formed in sections that are hinged together for selective attachment to the leg extension bars.

12. A weightlifting system, comprising a frame having a pair of upright posts, an elongated bar constrained for movement along the posts, a bench positioned between the posts and beneath the bar, a pair of weight stands on opposite sides of the frame near the posts, and a plurality of weight plates on each of the stands adapted to be selectively attached to the bar without being removed from the weight stands.

13. The weightlifting system of Claim 12 wherein the bar is attached to sleeves which are slidably mounted on the posts.

14. The weightlifting system of Claim 13 including stops on the posts for holding the bar in a predetermined rest position.

5 15. The weightlifting system of Claim 13 including a pair of individually operable leg extension bars at one end of the bench, and a plurality of weight plates resting on supports near the leg extension bars and adapted to be selectively attached to the leg extension bars without being removed from the supports.

5 16. A weightlifting system, comprising a horizontally extending bar, a plurality of weight plates removably mounted on the bar, means supporting the bar at a predetermined rest height, a bench having a support pivotally mounted on a frame beneath the bar for movement between a horizontal position near the bar and a downwardly inclined position away from the bar, and means operable by a person on the bench for moving the support from the horizontal position to the downwardly inclined position.

5 17. The weightlifting system of Claim 16 wherein the means for moving the support includes a lifting arm which engages the under side of the support in cam-like fashion and is affixed to a shaft mounted on the frame for rotation between upright and retracted positions, and a handle operable by a person on the bench for turning the shaft to move the arm between the upright and retracted positions.

18. The weightlifting system of Claim 13 including a pair of individually operable leg extension bars mounted on the frame at an end of the bench away from the bar, foot supports affixed to the frame near the leg extension

bars, and a plurality of weight plates resting on supports for selective  
5 attachment to the leg extension bars.

19. A weightlifting system, comprising a bench, a pair of weight stands on  
opposite sides of the bench, an elongated bar extending over the bench  
between the weight stands, a plurality of weight plates disposed side-by-side  
in an upright position on each of the weight stands, with end portions of the  
5 bar passing through openings in the plates and the plates being formed in  
sections which are hinged together and adapted to be selectively attached to  
the bar by movement between open and closed positions, means for moving  
the bench between raised and lowered positions relative to the bar, a pair of  
individually operable leg extension bars at one end of the bench, a weight  
10 tray near each of the leg extension bars, and a plurality of weight plates  
resting in the weight trays for selective attachment to the leg extension bars.

20. The weightlifting system of Claim 19 including a frame having a pair  
of upright posts positioned between the weight stands, and a pair of guides  
which are connected to the bar and mounted on the posts for movement  
along them.